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AUTHOR   Milkman, Robert I.
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Abstract
                Data was gathered from master's degree
recipients and candidates in audiovisual education, their
employers, and prospective employers to provide information
to implement decision-making by degree candidates,
departments of audiovisual education, prospective
employers, and professional organizations. The entering
competencies of degree candidates were ascertained.
Demographic characteristics of both recipients and
candidates were identified. Each degree recipient was asked
to identify the type of position he expected upon
graduation. Prospective employers were surveyed to identify
the types of positions they had available for degree
candidates. Employers and degree recipients were asked to
indicate areas of graduate study they considered to be
essential for certain positions. Data was analyzed to
determine relationships between any two characteristics and
a chi-square program was applied to determine the
significance of any differences. Based on the analyzed
data, recommendations are made to increase the coordination
of manpower development efforts by the educational media
industry, universities, and professional organizations. (JY)

ENTERING AUDIOVISUAL COMPETENCIES, AREAS OF GRADUATE

STUDY IN AUDIOVISUAL EDUCATION, AND PLACEMENT

EXPECTATIONS OF MASTER'S DEGREE CANDIDATES

IN AUDIOVISUAL EDUCATION

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A Summary Report on the Professional Audiovisual

Education Study (PAVE)

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Robert L. Milkman
Office of Planning in Higher Education
State Education Department
Albany, New York   12224

October 1969

Areas of Inquiry

This investigation deals with the following questions:

1. What audiovisual competencies do candidates exhibit when entering master's degree programs in audiovisual education?

2. What types of jobs in the media field are available to master's degree candidates?

3. What areas of graduate study in audiovisual education are available to master's degree candidates?

4. What types of jobs in the media field do master's degree candidates expect, and which areas of graduate study in audiovisual education do they consider essential for these jobs?

5. Are the audiovisual competencies of master's degree candidates related to areas of graduate study in audiovisual education which they consider essential?

6. Are the audiovisual competencies of master's degree candidates related to the types of jobs they expect?

7. What types of jobs in the media field are held by master's degree recipients, and which areas of graduate study in audiovisual education do they consider essential for their jobs?

8. What areas of graduate study in audiovisual education do the employers of master's degree recipients consider essential for the jobs held by the degree recipients?

9. What areas of graduate study in audiovisual education do the prospective employers of master's degree candidates consider essential for the jobs available to degree candidates?

Purpose

This investigation was motivated by a desire to enhance the professional status of personnel engaged in the educational media field. Specifically, it is hoped that information resulting from this investigation will benefit (a) degree candidates when they make decisions regarding courses and employment; (b) departments of audiovisual education when they set entrance requirements, advise candidates, and revise course offerings; (c) prospective employers when they establish qualifications and select job applicants; and (d) professional organizations and state education departments when they formulate standards for certification of audiovisual personnel.

Procedure

The population included 159 individuals who earned master degrees in audiovisual education between September 1964 and August 1966, 136 employers of the degree recipients, 258 individuals who became master's candidates in audiovisual education during September 1967, and 149 prospective employers of the degree candidates.

Fourteen areas of graduate study in audiovisual education were derived from lists of audiovisual courses described in catalogs of fifty-two colleges and universities which offered a master's degree in audiovisual education as of September 1966. Copies of the instrument, "Areas of Graduate Study in Audiovisual Education" (see Appendix A), were included with questionnaires made available to degree candidates, degree recipients, employers, and prospective employers.

The McLaughlin Instructional Communications Examination (Peda Test

Service, Rochester, New York, 1967), originally developed to assess changes
in knowledge of media for the Educational Media Institute Evaluation
Project, was used to determine entering audiovisual competencies of the
degree candidates. This examination was administered by departments of
audiovisual education.

Demographic characteristics (age, sex, marital status, undergrad-
uate major) of degree candidates and degree recipients were identified
from questionnaire responses. Questionnaires were administered to degree
candidates by departments of audiovisual education; degree recipients
identified by the departments received questionnaires through the mails.

Fourteen types of jobs for the media field were presented in the
format provided by Martin and Stone (A Study of Regional Instructional
Media Resources: Phase 1 – Manpower, Pittsburgh, 1965). Copies of the
instrument, "Types of Jobs for the Media Field" (see Appendix B), were
made available to degree candidates, degree recipients, and prospective
employers. Using this instrument in conjunction with his questionnaire,
each degree recipient was asked to identify the type of position he expected.
Prospective employers named by the departments of audiovisual education
used this instrument in conjunction with mailed questionnaires which asked
them to identify types of positions they had available for degree candidates.

Questionnaires were mailed to employers named by the degree recip-
ients. Using "Areas of Graduate Study in Audiovisual Education" in conjunc-
tion with their questionnaires, degree recipients and their employers were
asked to make separate identifications of the areas of graduate study they
considered to be essential for the types of positions held by the degree
recipients. Degree candidates and their prospective employers used the
same instrument together with their questionnaires to make separate

identifications of the areas of graduate study they considered to be
essential for the types of positions which degree candidates expected and
which were available to them.

The analysis of data may be summarized as follows: A t-test was
used to compare scores earned on the McLaughlin Examination by degree
candidates with those attained by a normative group of 140 graduate students
from other desciplines. Data received from degree recipients, employers,
degree candidates, and prospective employers were transferred to keypunch
cards and converted by computer to FORM matrices -- formats which make it
possible to pinpoint relationships between any two characteristics in a
collection of data. (FORM means Fact Ordering, Reporting and Mapping.
This method of data handling was developed by John Slater, General Electric
Company, 1965). A chi-square program was applied to the FORM matrices
to determine the significance of differences between population groups
with regard to any attribute shared by them (age, sex, salary, etc.), and
also to test the significance of differences between groups delineated
by types of jobs in the media field. The contingency coefficient (see
Siegel, Nonparametric Statistics, 1956) was used to measure size of rela-
tionships between two characteristics in a single population group.

Principal Findings

The 258 degree candidates attained a mean score on the McLaughlin
Instructional Communications Examination (seventy-two items) of 40.32 with
a standard deviation of 8.36. The normative group of 140 members, composed
of graduate students enrolled in their first audiovisual course but not
planning to specialize in audiovisual education, earned a mean score on
the McLaughlin Examination of 31.96 with a standard deviation of 7.27.

A t-test indicated that differences between means were significant and in favor of the degree candidates.

A cross-tabulation was made between audiovisual competencies of degree candidates and areas of graduate study in audiovisual education considered essential by degree candidates. The relationship between these qualities was not significant as determined by the chi-square test (Table 1).

Audiovisual competencies of degree candidates identified with each occupational group analyzed were compared with audiovisual competencies of degree candidates identified with all other occupational groups in the media field. No statistically significant differences were found between audiovisual competencies of degree candidates in each analyzed group and those of all other degree candidates.

Audiovisual competencies of degree candidates were cross-tabulated with distributions of degree candidates by age, sex, and undergraduate major respectively. A significant association was found between audio-visual competency and sex: women tend to have lower audiovisual competencies than men (Table 2).

Thirty (18.86%) of the 159 degree recipients identified themselves as media administrators. Of the 258 degree candidates, fifty (19.37%) expected to be employed in the administration of media. Forty-six (30.87%) of the 149 prospective employers sought to engage degree candidates in this job category.

Supervisors of curriculum and/or instructional materials accounted for six (3.77%) of all degree recipients. Fourteen (5.42%) of the degree candidates expected jobs as supervisors; thirteen (8.72%) of the prospective employers offered degree candidates positions in this capacity.

Associating themselves with instruction in higher education or

TABLE 1

RELATIONSHIP BETWEEN AREAS OF GRADUATE STUDY IN AUDIOVISUAL EDUCATION
CONSIDERED ESSENTIAL AND AUDIOVISUAL COMPETENCY
OF DEGREE CANDIDATES

Areas of Graduate Study Considered Essential	Audiovisual Competency		
	High (N=84)	Medium (N=89)	Low (N=85)
I Audiovisual Materials in Education	77	73	69
II Administration of Audiovisual Programs	73	69	56
III Production of Graphic Materials	77	68	62
IV Photography in Education	65	52	44
V Programmed Instruction	62	46	49
VI Motion Pictures in Education	67	61	50
VII Radio and Television in Education	62	58	54
VIII Workshop in Radio and Television	40	46	38
IX Field Work and Internship in Audiovisual Education	52	43	43
X Theory and Research in Audiovisual Education	52	50	47
XI Practicum in Audiovisual Education	50	38	40
XII Special Projects	53	43	49
XIII Computer-Guided Instruction	41	34	41
XIV Audiovisual Library Science	39	43	39

CONTINGENCY COEFFICIENT: C = .06   DF = 26 X^2 = 9.17 $p > .99$

TABLE 2

RELATIONSHIP BETWEEN SEX AND AUDIOVISUAL COMPETENCY
OF DEGREE CANDIDATES

Sex	Audiovisual Competency			
	High	Medium	Low	Totals
Male	76	71	44	191
Female	8	18	41	67
Totals	84	89	85	258

CONTINGENCY COEFFICIENT: C = .34   DF = 2 X^2 = 35.26 $p < .001$

research were eighteen (11.32%) of the degree recipients. Expectations for jobs as college teachers or as research specialists were registered by fifty-three (20.54%) of the degree candidates. Thirteen (8.72%) of the prospective employers had positions in these areas available to degree candidates.

Situated as television production specialists were five (3.14%) of the degree recipients. Sixteen (6.20%) of the degree candidates anticipated engagements as television production specialists. Openings of this nature were available to degree candidates from eight (5.36%) of the prospective employers.

Forty-eight (30.18%) of the degree recipients were specialists in audiovisual production or instructional media. Degree candidates expecting positions in this occupational group totaled seventy-nine (30.62%) among all degree candidates. Jobs for specialists in audiovisual production or instructional media were offered to degree candidates by fifty-three (35.57%) of the prospective employers.

Identifying themselves as librarians were eleven (6.91%) of the degree recipients. Eleven (4.26%) of the degree candidates looked forward to engagements as librarians; such engagements were available to degree candidates from three (2.01%) of the prospective employers.

One (.62%) of the degree recipients belonged to the occupational group for engineers and computer specialists. One (.38%) of the degree candidates expected to join this group. None of the prospective employers registered openings for engineer or computer specialists.

Twenty-nine (18.23%) of the degree recipients were serving as television teachers or teacher-AV coordinators. Employment in this occupational group was anticipated by twenty-nine (11.24%) of the degree candidates.

Jobs for television teachers or teacher-AV coordinators were offered to degree candidates by seven (4.69%) of the prospective employers.

Teachers accounted for eleven (6.91%) of the degree recipients. Five (1.93%) of the degree candidates expected to be employed as teachers. One (.67%) of the prospective employers sought degree candidates to serve in teaching.

None of the degree recipients regarded themselves as clerical or technical assistants; none of the degree candidates anticipated employment in such capacities. Five (3.34%) of the prospective employers offered degree candidates jobs as clerical or technical assistants.

Of the fourteen areas of graduate study in audiovisual education, ten were available to a larger number of degree candidates than the number of those who considered them essential. However, only Audiovisual Materials in Education and Administration of Audiovisual Programs were available to all degree candidates who considered them essential. Practicum in Audio-visual Education, Field Work and Internship in Audiovisual Education, Computer-Guided Instruction, and Audiovisual Library Science were available to half or less of the degree candidates who considered them essential (Table 3).

Audiovisual Materials in Education was considered essential by more degree recipients, employers, degree candidates, and prospective employers respectively than any other area. Production of Graphic Materials was selected second most frequently by degree recipients, employers, and degree candidates. It was third, behind Audiovisual Library Science, among the selections made by prospective employers. Computer-Guided Instruction was considered essential by fewer degree recipients and degree candidates than any other area. Least popular among employers and prospective employers was Workshop in Radio and Television.

TABLE 3

AREAS OF GRADUATE STUDY IN AUDIOVISUAL EDUCATION BY NUMBER OF DEGREE CANDIDATES
WHO CONSIDERED THEM ESSENTIAL, NUMBER OF DEGREF CANDIDATES TO WHOM THEY WERE
AVAILABLE, AND NUMBER OF DEGREE CANDIDATES TO WHOM THEY WERE BOTH
ESSENTIAL AND AVAILABLE

Areas of Graduate Study	Number of Degree Candidates		
	Essential	Available	Essential and Available
I Audiovisual Materials in Education	219	258	219
II Administration of Audiovisual Programs	198	258	198
III Production of Graphic Materials	207	229	186
IV Photography in Education	161	190	121
V Programmed Instruction	157	195	127
VI Motion Pictures in Education	178	153	108
VII Radio and Television in Education	174	224	153
VIII Workshop in Radio and Television	124	199	89
IX Field Work and Internship in Audiovisual Education	138	71	41
X Theory and Research in Audiovisual Education	149	224	131
XI Practicum in Audiovisual Education	128	137	64
XII Special Projects	145	240	135
XIII Computer-Guided Instruction	116	84	36
XIV Audiovisual Library Science	121	37	16

Statistically significant differences in areas of graduate study in audiovisual education considered essential were found between degree recipients and degree candidates and between the degree candidates and their propsective employers. Ten of the fourteen areas were considered essential by larger proportions of degree candidates than degree recipients. Exceptions included Audiovisual Materials in Education, Production of Graphic Materials, Theory and Research in Audiovisual Education, and Audiovisual Library Science. All but two areas, Computer-Guided Instruction and Audiovisual Library Science were considered essential by greater proportions of degree candidates than prospective employers.

Programmed Instruction and Computer-Guided Instruction were not considered essential by any individuals who sought to employ specialists in television production. Degree recipients working as librarians were proportionately less disposed than other degree recipients to consider as essential most areas of graduate study in audiovisual education. Exceptions included Audiovisual Materials in Education, Administration of Audiovisual Programs, and Audiovisual Library Science.

Areas of graduate study in audiovisual education considered essential were compared between degree candidates identified with each occupational group analyzed and all other degree candidates. No significant differences were indicated by the chi-square tests.

Thirty-three (or 20.78%) of the 159 degree recipients, and sixty-seven (or 25.96%) of the 258 degree candidates, are women. Sex is paramount in its frequency of significant relationships to other demographic characteristics and to particular occupational groups. The relationship between audiovisual competency and sex has already been mentioned. There is a significant association between sex and age of degree recipients: female degree recipients tend

to be older than their male counterparts. Correlations between sex and undergraduate major are significant for degree recipients and degree candidates alike. Among both groups the proportion of women with under-graduate majors exclusively in Education is greater than the share of men with similar undergraduate majors (Tables 4 and 5).

TABLE 4

RELATIONSHIP BETWEEN UNDERGRADUATE MAJOR
AND SEX OF DEGREE RECIPIENTS

Undergraduate Major	Sex		
	Male	Female	Totals
Education Only	54	21	75
Other Disciplines	72	12	84
Totals	126	33	159

CONTINGENCY COEFFICIENT: $C = .16$ $DF = 1$ $x^2 = 4.53$ $p < .05$

TABLE 5

RELATIONSHIP BETWEEN UNDERGRADUATE MAJOR
AND SEX OF DEGREE CANDIDATES

Undergraduate Major	Sex		
	Male	Female	Totals
Education Only	68	33	101
Other Disciplines	123	34	157
Totals	191	67	258

CONTINGENCY COEFFICIENT: $C = .12$ $DF = 1$ $x^2 = 3.88$ $p < .05$

Degree recipients functioning as librarians tend to be women. Degree candidates anticipating positions as media administrators are likely to be men; those expecting to become supervisors of curriculum and/or instructional materials are apt to be women, as are those looking forward to service as television teachers or teacher-AV coordinators.

A significant association was noted between age and salary of degree recipients: salary tends to increase with age. Degree recipients · serving as media administrators tend to earn more than other degree recipients; the opposite applies to degree recipients functioning as librarians (Tables 6 and 7).

TABLE 6

SALARIES OF DEGREE RECIPIENTS EMPLOYED AS MEDIA ADMINISTRATORS
COMPARED WITH SALARIES OF ALL OTHER DEGREE RECIPIENTS

Salary (Range)	Media Administrators	All Other Degree Recipients
Under - $ 7,000	2	42
$ 7,000 - 8,999	14	60
9,000 - 10,999	9	24
11,000 - 12,999	4	2
Over 13,000	1	1
Totals	30	129

CHI-SQUARE TEST: DF = 4 X^2 = 17.64 $p < .01$

TABLE 7

SALARIES OF DEGREE RECIPIENTS EMPLOYED AS LIBRARIANS. COMPARED
WITH SALARIES OF ALL OTHER DEGREE RECIPIENTS

Salary (Range)	Librarians	All Other Degree Recipients
Under – $ 7,000	9	35
$ 7,000 – 8,999	1	73
9,000 – 10,999	1	32
11,000 – 12,999	0	6
Over 13,000	0	2
Totals	$\overline{11}$	$\overline{148}$

CHI-SQUARE TEST: DF = 4 X^2 = 17.45   p > .001

Eighty-four (or 52.83%) of the degree recipients, and 157 (or 60.85%) of the degree candidates, have undergraduate majors in disciplines other than Education. Distributions by undergraduate major differ significantly between degree recipients specializing in audiovisual production and all other degree recipients, and between degree candidates expecting to specialize in audiovisual production and all other degree candidates. Degree recipients specializing in audiovisual production tend to have undergraduate majors in disciplines other than Education; degree candidates expecting to enter this specialty tend to have undergraduate majors in Education.

Degree candidates anticipating positions as college instructors (or as research specialists) differ significantly in their undergraduate majors from other degree candidates, and from degree recipients serving in this career area. The candidates in question are distinguished from other candidates by their greater proclivity for undergraduate majors in disciplines other than Education. Degree recipients employed in this

occupational group demonstrate no marked direction with regard to under-

graduate majors.

Discussion

Differences between degree candidates and the normative group by

scores attained by the McLaughlin Examination may be explained by a number

of factors not covered in this investigation: interest or motivation,

experience, specific areas of study at the undergraduate level, admission

requirements, career counseling. Whatever the reasons, degree candidates

appear eminently more qualified on the basis of audiovisual competency to

pursue a career in educational media than graduate students enrolled in

an audiovisual course but not planning to specialize in this academic area.

Though this investigation was not designed to probe the apparent

decline of Education as undergraduate background for graduate concentration

in audiovisual education, the following are offered as possible explanations:

legislation and press coverage have increased the appeal of audiovisual

education; use of new labels ("communications," "technology") by departments

of audiovisual education attracts a broader range of students, the trans-

formation of state teacher colleges to liberal arts institutions has enabled

more students to obtain undergraduate majors in disciplines other than

Education.

Ten of the fourteen areas of graduate study in audiovisual educa-

tion were considered essential by a larger proportion of degree candidates

than degree recipients. Twelve of these areas were considered essential

by a larger proportion of degree candidates than prospective employers.

Only two areas were available to all degree candidates who considered them

essential; four were available to half or less of those who considered

them essential.

Findings stated in the above paragraph seem to indicate a substan-
tial lack of communication about relationships between academic preparation
and employment in the audiovisual field. There is currently no way of
knowing whether the degree candidates overacted because of ignorance, or
whether their selections of essential areas could be justified objectively
in terms of their placement expectations. It is therefore possible to
indict departments of audiovisual education on one count for failing to
provide adequate information to the degree candidates, and on another for
denying many of them opportunities for instruction in areas they consider
essential.

Recommendations

Institutes, seminars, interviews, telectures, and other channels
should be established specifically for two-way communication between media
instructors (academicians) and the employers and prospective employers of
media personnel. The benefits which could result from these proceedings
are easily appreciated. They would help to prevent gross mismatching
between available jobs and available personnel. They might lead to greater
appreciation of media by employers and, concomitantly, to larger expendi-
tures for media services. They would enable the communicants to relate
employer needs for media personnel to new instructional systems, individ-
ually-prescribed instruction, chemically-induced learning, and other
emerging concepts of education.

Though core concepts in audiovisual education could not reasonably
be expected to expand at the same rate that information is added to the
field, change is inevitable. Paper-and-pencil tests of audiovisual
competency require periodic revisions. These should be based upon examination

of current texts, analysis of course content, and determination of instruc-
tional objectives.

Operational competencies call for still other methods of evaluation.
Criteria checklists and product ratings are common in audiovisual education,
and they may be usefully applied for measuring a variety of performance
skills (e.g., equipment operation and the production of simple instructional
materials). There is no reason to believe that "in-basket" and computer
gaming techniques could not be widely used to instruct and test students
in decision-making principles which relate to the overall performance of
media services.

Results of the McLaughlin Examination in this and other investiga-
tions should be analyzed to determine the extent of success or failure on
each item by the two sexes. The findings may indicate areas of competency
in which men are superior to women and vice versa. Information of this
nature might spur efforts to attract more women to the media field. An
increase of female talent, coupled with career counseling for both sexes,
could be most useful in alleviating personnel shortages.

Studies of audiovisual competencies, functions, curricula, manpower
needs, or certification requirements should be regarded as parts of a
continuing process. That there is a process can be easily demonstrated
because of the interdependent and cumulative nature of these topics, and
the examination of one in isolation from the rest has little value. The
process continues only as new data is obtained to replace the old or to
extend existing knowledge.

The Department of Audiovisual Instruction should coordinate manpower
development studies through a special group of permanent staff members.
This group would identify research priorities, recommend procedures, collate

and disseminate important findings. It might assist independent media researchers in the collection of selected data. Its overriding purpose would be to provide more and better information on an area of interest common to major segments of the DAVI constituency.

Growth in the educational media industry is ultimately dependent upon the extent to which its contributions can improve instruction and learning. Though its motives may differ, the industry shares with the profession a direct interest in the effective application of equipment, materials, and media services to education. It is therefore reasonable to expect industry support for studies on the development of media manpower, and DAVI should initiate discussions for this purpose.

APPENDIX A

AREAS OF GRADUATE STUDY IN AUDIOVISUAL EDUCATION

I. AUDIOVISUAL MATERIALS IN EDUCATION

Selection, utilization, and evaluation of projected and nonprojected materials in educational programs. (May include maintenance and operation of audiovisual equipment).

II. ADMINISTRATION OF AUDIOVISUAL PROGRAMS

Organizing, supervising, and coordinating audiovisual centers as an integral part of educational systems. (May include requirements for educational facilities.)

III. PRODUCTION OF GRAPHIC MATERIALS

Planning and preparing a variety of projected and nonprojected materials for use in educational programs. (May include script writing.)

IV. PHOTOGRAPHY IN EDUCATION

Theory and application of photographic techniques in the production of audiovisual materials.

V. PROGRAMMED INSTRUCTION

Learning theory applied to the construction and evaluation of self-instruction programs.

VI. MOTION PICTURES IN EDUCATION

Theory, demonstration, and practice of various techniques used in producing and utilizing films for educational purposes. (May include motion picture appreciation.)

VII. RADIO AND TELEVISION IN EDUCATION

Utilization, evaluation, and administration of radio and television programming

VIII. WORKSHOP IN RADIO AND TELEVISION

Planning and/or producing radio and television programs for educational systems. (May include script writing and operation of sound reproduction equipment.

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IX. FIELD WORK AND INTERNSHIP IN AUDIOVISUAL EDUCATION

Supervised administrative and other nonteaching experiences
in the audiovisual center or in educational systems outside
the University.

X. THEORY AND RESEARCH IN AUDIOVISUAL EDUCATION

Analysis of psychological and technological principles
incorporated in the design and use of messages for
educational purposes. (May include reports of relevant
studies.)

XI. PRACTICUM IN AUDIOVISUAL EDUCATION

Group practice in applying psychological and technological
principles to the design and use of messages for educa-
tional purposes.

XII. SPECIAL PROJECTS

Individual or seminar investigations of specific problems
in audiovisual education.

XIII. COMPUTER-GUIDED INSTRUCTION

Theory and practice in the use of computers to guide
instruction; basic computer operations and principles
as they relate to current concepts of teaching and
learning.

XIV. AUDIOVISUAL LIBRARY SCIENCE

Library principles in accessioning, classifying, cataloging,
circulating, and maintaining non-book materials for educa-
tional systems.

APPENDIX B

TYPES OF JOBS FOR THE MEDIA FIELD*

Functional Area		Occupational Group Identification	Jobs**
Group 1	Administration of Media	Administrator (Media)	Manager, Closed Circuit TV Director of the Library Director of Audiovisual Services
Group 2	Supervision of Curriculum/Development of Media	Supervisor of Curriculum/ Instructional Materials	Supervisor, Sec. School Librarian Curriculum Supervisor Director of Instructional Material
Group 3	Teaching for the Use of Media	College or University Teacher	Assistant Professor of Education Associate Professor and Director of ETV Art Director
Group 4	Research and Development of Media	Research Specialist	Coordinator of Research Development Learning Research Speciali Head, Information Retrieva Research
Group 5	Television Production	Media Production Specialist (TV)	TV Director-Producer Supervisor, AV Services Area Coordinator, TV Production
Group 6	Audiovisual Production	Media Production Specialist (AV)	Photographer Graphic Artist Visual Communications Specialist
Group 7	Distribution/Production of Media	Instructional Media	AV Coordinator Director, IMC AV Consultant
Group 8	Distribution of Printed Materials	Librarian (Lib)	Librarian Film Librarian Teacher – Librarian

* / indicates and/or

** not a complete listing

Groups 3 and 4, 6 and 7, 9 and 10, 11 and 13 were combined for the analysis stage of this investigation.

TYPES OF JOBS FOR THE MEDIA FIELD (Con't.)

	Functional Area	Occupational Group Identification	Jobs
Group 9	Distribution/ Computers	Computer Specialist (Comp.)	Computer Operator Senior Computer Operator Computer Programmer
Group 10	Distribution/Audio or Video transmission	Engineer (AV or TV)	Engineer in Educational TV Engineering Supervisor Transmitter Engineer Videotape Supervisor Sound Engineer
Group 11	Utilization of Media	Television Teacher (School or College)	TV Consultant TV Teacher
Group 12	Utilization of Media	Teacher (School or College)	Elementary Teacher High School Teacher Teacher, Science
Group 13	Utilization/Distribution/Production of Media	Teacher-AV Coordinator	Teacher-AV Coordinator Teacher- Visual Aids Director Assistant Prof.-Language Lab. Director
Group 14	Assisting in the Use of Media	Clerical and Technical Assistants	Data Control Coder Language Laboratory Attendant Senior Clerk Equipment Technician, Senior Projectionist Laboratory Technician Clerical Assistant